

BACK TO THE FUTURE – OBSERVING THE TRANSIT OF VENUS NOW AND THEN

A project supporting by Europlanet Outreach Funding

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Introduction: The project had many-sided targets: we tried to focus on both global as well as local aims, such as international co-operation, global and local interaction, innovation and sharing best practice.

By implementing the project, we would have liked to popularise the results and impacts of the 1769 Venus expedition performed by János Sajnovics and Miksa Hell. We would have liked to highlight the pioneer work done by the two scientists, and to inspire the young generation to be creative in using modern technology.

Our plans: The project would liked to encourage new ways of bringing planetary science to the large audience by elaborating an online game and making a documentary film. The projected online game has offered participants a unique possibility to acquire scientific knowledge in an entertaining form. The tasks to be solved will focus on both the former expedition and the actual progress of the project. The planned film witnessed the progress of the project and showed the way the young generation experiences scientific innovation and discoveries nowadays.

The target audiences of the project were mainly the members of the young generation, Facebook users who share their experience on a daily basis on the social network. Our main objective was to attract their attention on a natural phenomenon, namely the passage of Venus and to involve them in a scientific as well as entertaining experience. Within this framework, interaction and international co-operation represent our cue interest. The planned online game focused on providing scientific knowledge, but didn't limit itself to pure knowledge transmission; it will also mean entertainment using a popular form of social interaction. Similarly, the project would liked to encourage a wide European participation by promoting international co-operation between secondary school students focused on but not limited to Hungary, Norway, Denmark and Finland.

Implementation of project

A) HELL GAME

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We completed Sajnovics's Facebook page as well as the Transits of Venus page in March. These two sites existed in both the Hungarian and English language. Sajnovics's page mainly contained posts referring to his travelogue.

The publicity of the game was ensured by several ways. The students involved in the project posted links on their Facebook pages, and encouraged their acquaintanceship both inland and abroad to advertise the link on their own pages. We also managed to launch appeals on several websites, such as EuroPlanet, Lightcurvefilms on Vimeo and Venusfestival 2012 Vardö, where we popularised our game. Our thanks go to all the administrators of the websites that supported our endeavours.



Fig.1: the opening site of Hell Game and a link on Vardöfestival website

The game itself could be played via the Internet through a valid Facebook application. All would-be participants needed to register on the Facebook first.

The game was a multiple choice quiz, where players had to choose the correct answer from three possibilities. Part of the questions focused on the Hell-Sajnovics expedition, so most of the correct answers were to be found on the Facebook page and the film. Part of the tasks were in connection with the transit of Venus itself, and emphasized the astronomical side of

the project. Several questions were based on enclosed pictures and photographs. Questions were posted on the site one after the other, regularly two or three questions a day and participants were initially given several days to find the right answers. As time passed, players had to solve the quiz within one day.

We have to admit that our original idea to advertise the game through young people to young people did not prove to be successful. Although young people suggested to us what prizes to offer to the participants, we did not manage to arouse more interest in the game. As a matter of fact, we did not have any participants from abroad, and even from Hungary some one hundred students enrolled in the game, a figure below our expectations. Therefore, we started a second round of the game in autumn, this time in German and Slovakian beside the original Hungarian version. In fact, Hell's activity may be linked to both Austria and Slovakia, so we thought it a good idea to propagate the game in these two countries. The translation in German was effected by our colleagues, while the Slovakian version of the game came into being through the altruist help of several people who we would like to thank in this way, too. The call for the game appeared on an Austrian website, and on several Slovakian ones thanks to unselfish contribution of the Association of Hungarian Teachers in Slovakia. Unfortunately, the timing proved to be improper; the second round started in December 2012 and finished early in 2013. We considered a later start to the game, but that would have meant running out of the event's topicality. Hell Game was given a role in a Hungarian competition that combines scientific knowledge with hiking called Physics Tour, whose topic in 2012 was the transit of Venus. Participants had to solve the quiz as a lead-in task to the competition itself.

Prizes were offered to the participants who ended up the competition in the first round in May, as the number of second round participants did not prove to be significant enough.

B) FILM

As part of the project, we produced a film on original venues based on János Sajnovics's travelogue. We originally considered co-operating with Danish and Norwegian colleagues and fellow-students. We tried to address to them through contact people, but did not succeed to get them involved in the project, as the time of our visit coincided with the high-school graduation in Denmark, whereas the Norwegian side was apparently not interested in co-operation.

Anyway, our enthusiastic staff set off on May 3rd to Trondheim and started shooting. The introductory part was shot at our school in Hungary. The first venue outside Hungary was Taastrup outside Copenhagen.

The Kroppedal Museum offered an excellent location for shooting old telescopes and other astronomical devices used in the game. Our next venue, the ruins of Ole Roemer's former observatory was also a rewarding experience in producing the film. One of the scenes of the documentary was shot at the statue of Ole Roemer.

Copenhagen offers an amazing setting for the film. We followed in Hell and Sajnovics's track in the Latin Quarter and filmed such locations as the university and the Round Tower. After returning from the past to the present time, the main characters of the film recollect memories of their former trip: their circumstances and observations. The students who impersonate themselves explain the use of some modern technical devices (such as the GPS) to the two scholars.



Fig.2: Shooting in Oslo and in Taastrup

The next venue, the Dovre Plateau, namely the village of Fokstuen, where according to Sajnovics's diary, they changed horses at that time, gave the group an immense surprise. The private property which we chose for shooting was exactly the same Fokstuen as it used to be, and the proprietor, the present owner of the mansion, is the 11th generation in the genealogy of the Fokstuen family. We interviewed him for our film.

Our documentary follows the Hell expedition until Trondheim. It was in October 1769 that the members of the expedition boarded a ship to continue their trip. So we bade farewell to our astronomers who came back from their past for our sake to share a moment of the present with us.

Summary: we would like to report about a project linking to the transit of Venus, implementing by students from Hungary.